WHAT IS CLAIMED IS:

1. An immunoconjugate that comprises an antibody or an immunogenic fragment thereof that binds to an antigen expressed by a target cell that is to be eradicated, wherein said antibody or immunogenic fragment thereof possesses human effector function, which antibody or immunogenic fragment thereof is fused at its carboxy terminus to a cytokine that binds a receptor expressed on the surface of a natural killer cell and/or macrophage, thereby resulting in an immunoconjugate that facilitates extracellular (ADCC-type) and/or intracellular (phagocytic) killing of target cell, when said immunoconjugate is administered to a host.

2. The immunoconjugate of Claim 1, wherein the cytokine is an interferon.

3. The immunoconjugate of Claim 1, where in the interferon is alpha inteferon (IFN-α).

4. The immunoconjugate of Claim 1, where in the interferon is IFN-α and is IFN-α-2a, IFN-α-2b or IFN-α-2n1.

5. The immunoconjugate of Claim 1, wherein the target cells are selected from the group consisting of: a breast carcinoma cell, an ovarian carcinoma cell, a prostate carcinoma cell, a lung carcinoma cell, a leukemic T cell, a leukemic B cell, a multiple myeloma cell and a B cell lymphoma cell.

6. The immunoconjugate of Claim 1, wherein the antigen is selected from the group consisting of: CD19, CD20, CD22, CD33, CD38, EGF-R, HM1.24, phosphatidyl-serine antigen, HER-2, TAG-72 and MUC-1.

7. The immunoconjugate of Claim 6, wherein the antibody which recognizes the antigen CD20 is RITUXAN, IF5, B1 or IH4.

8. The immunoconjugate of Claim 6, wherein the antibody which recognizes CD19 is B4, B43 or FVS191.

9. The immunoconjugate of Claim 6, wherein the antibody which recognizes CD22 is hLL2, LL2 or RFB4.

10. The immunoconjugate of Claim 6, wherein the antibody which recognizes CD33 is M195 or HuM195.

11. The immunoconjugate of Claim 6, wherein the antibody which recognizes CD38 is AT13/5.

12. The immunoconjugate of Claim 6, wherein the antibody which recognizes HER-2 is HERCEPTIN® or 4D5.

13. The immunoconjugate of Claim 6, wherein the antibody which recognizes TAG-72 is HuCC49, HuCC39ΔCH2 or B72.3.

14. The immunoconjugate of Claim 6, wherein the antibody which recognizes MUC-1 is 12C10, IG5, H23, BM-2 (2E11), BM-7, 12H12, MAM-6 or HMFG-1.

15. The immunoconjugate of Claim 1, wherein the immunogenic fragment is selected from the list consisting of a domain-deleted antibody, Fab, Fab^1, Fab_2, SFV, single chain antibodies, domain-deleted antibodies and minibodies.

16. A method of enhancing apoptosis of a target cell by administering a therapeutically effective amount of an immunoconjugate of Claim 1 to a subject.

17. The method of Claim 16, wherein the target cell is a malignant cell selected from the group consisting of: a breast carcinoma cell, an ovarian carcinoma cell, a prostate carcinoma cell, a lung carcinoma cell, a leukemic T cell, a leukemic B cell, a multiple myeloma cell and a B cell lymphoma cell.

18. A nucleic acid encoding an immunoconjugate of Claim 1.

19. A nucleic acid encoding an immunoconjugate that comprises an antibody or an immunogenic fragment thereof that binds to an antigen expressed by a target cell that is to be eradicated, wherein said an antibody or an immunogenic fragment thereof possesses human effector function, which an antibody or an immunogenic fragment thereof is fused at its carboxy terminus to a cytokine or to a peptide which is fused to a cytokine wherein the that binds a receptor expressed on the surface of a natural killer cell and/or macrophage, thereby resulting in an immunoconjugate that facilitates extracellular (ADCC-type) and intracellular (phagocytic) killing of target cell, when said immunoconjugate is administered to a host.

20. A combination therapy to treat a malignancy in a subject comprising an immunoconjugate of Claim 1 and at least one chemotherapeutic agent or chemotherapeutic cocktail.

21. The combination therapy of Claim 19, wherein the chemotherapeutic agent is selected from the list consisting of ara-C, doxorubicin, idarubicin, mitoxantrone, chlorambucil, melphalan, 6-mercaptopurine, 6-thioguanine, dibromomannitol, IFN-α, 2-

chlorodeoxyadenosine, deoxycoformycin, dacarbazine, cisplatin, carmustine, lomustine, tauromustine, fotemustine, carboplatin, vincristine, vinblastine, vindesine, taxol, dibromodulcitol, detorubicin, piritrexin, estramustine, paclitaxel, navelbine or prenisolone.

22. The combination therapy of Claim 19, wherein the chemotherapeutic cocktail is selected from the list consisting of AC, ABDIC, ABVD, Ara-C, AVD, CAF, CAMP, CAP, CAP-BOP, CAVP, CEVD, CDDP+VP-16, CEF, CEM, CEP, CEPP(B), CEVD, ChlVPP, CHOP, CHOP-B, CMF, CMP, CMVP, CVP, DHAP, ESHAP, EPOCH, EVA, EVAP, IFN-α, IMVP-16, MACOP-B, m-BACOD, MIME, MINE, MOPLACE, MOPP, MOPP+ABV, MOPP+ABVD, MVPP, MTX-CHOP, PCVP, ProMACE-CytaBOM, ProMACE-MOPP, VABCD, VAT or VATH.